(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 16 January 2003 (16.01.2003)

PCT

(10) International Publication Number WO 03/005762 A3

(51) International Patent Classification⁷: H04Q 7/38, H04L 12/56

(21) International Application Number: PCT/US02/21040

(22) International Filing Date: 3 July 2002 (03.07.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 09/900,272

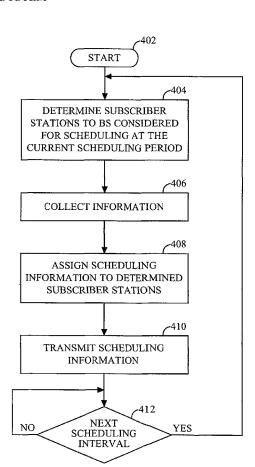
6 July 2001 (06.07.2001) US

- (71) Applicant: QUALCOMM INCORPORATED [US/US]; 5775 Moerhouse Drive, San Diego, CA 92121-1714 (US).
- (72) Inventor: CHEN, Tao; 5415 Harvest Run Drive, San Diego, CA 92130 (US).

- (74) Agent: WADSWORTH, Philip, R.; Baker, Kent D., Qualcomm Incorporated, 5775 Morehouse Drive, San Diego, CA 92121-1714 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PREDICTIVE SCHEDULING IN A BI-BI-DIRECTIONAL COMMUNICATION SYSTEM



(57) Abstract: Method and apparatus for predictive scheduling in a bi-directional communication system are disclosed. In a communication system (100), a control unit (218) has knowledge that a subscriber station (106) will have data to be transmitted at an ascertainable time in the future. The control unit in the communication system utilizes the knowledge to schedule the data transmission without the need for the subscriber station to transmit to request schedule for the transmission.

7O 03/005762 A3

WO 03/005762 A3



TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report: 18 September 2003

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Internate Application No

PCT/US 02/21040 CLASSIFICATION OF SUBJECT MATTER PC 7 H04Q7/38 H04L12/56 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 H04L H04Q Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X WO 98 35514 A (QUALCOMM INC) 1,2, 13 August 1998 (1998-08-13) 7 - 13. 18 - 22page 10, line 6-15 page 11, line 22-35 page 19, line 11-26 page 51, line 12-29 X WO 99 66748 A (ERICSSON TELEFON AB L M) 3-6. 23 December 1999 (1999-12-23) 14 - 17page 17, line 13-23 χ WO 96 37081 A (ROKE MANOR RESEARCH ; DAVIS 3,14 SIMON PAUL (GB)) 21 November 1996 (1996-11-21) the whole document -/--Further documents are listed in the continuation of box C. Patent family members are listed in annex. ° Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu— "O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled in the art. other means document published prior to the international filing date but later than the priority date claimed *&* document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 18 July 2003 31/07/2003 Name and mailing address of the ISA Authorized officer

Form PCT/ISA/210 (second sheet) (July 1992)

European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016

Roberti, V

INTERNATIONAL SEARCH REPORT

Internat Application No
PCT/US 02/21040

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT								
Category °	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.						
	, , , , , , , , , , , , , , , , , , , ,							
X	US 5 914 950 A (LIN YU-CHUAN ET AL) 22 June 1999 (1999-06-22) cited in the application the whole document	1						

INTERNATIONAL SEARCH REPORT

Intermation on patent family members

Internate Application No
PCT/US 02/21040

Patent document cited in search report		Publication Patent family		Publication	
		date	member(s)		date
WO 9835514	A	13-08-1998	US	6335922 B1	01-01-2002
			ΑU	6276298 A	26-08-1998
			BR	9806115 A	31-08-1999
			CA	2251397 A1	13-08-1998
			EP	0897644 A2	24-02-1999
			JP	2000509942 T	02-08-2000
			TW	444453 B	01-07-2001
			MO	9835514 A2	13-08-1998
			US	2002012332 A1	31-01-2002
		ب بن کر ہے ہے ہیں کہ جب کے کرے	_ZA	9800988 A	03-08-1999
WO 9966748	Α	23-12-1999	US	6347091 B1	12-02-2002
			ΑU	1447999 A	05-01-2000
			BR	9815914 A	20-02-2001
			CA	2335767 A1	23-12-1999
			CN	13 45 518 T	17-04-2002
			EP	1088463 A1	04-04-2001
			JP	2002518958 T	25-06-2002
			MO	9966748 A1	23-12-1999
ے جربت کرے ہے جب شا سے سربنا کا کر			TW	424377 B	01-03-2001
WO 9637081	Α	21-11-1996	CN	1157083 A ,B	13-08-1997
			EP	0771510 A1	07-05-1997
			WO	9637081 A1	21-11-1996
			JР	10503357 T	24-03-1998
			US	5943316 A	24-08-1999
US 5914950	Α	22-06-1999	 AU	7246698 A	30-10-1998
			CN	1263675 T	16-08-2000
			EP	0974237 A2	26-01-2000
			JΡ	2001519123 T	16-10-2001
			ΤW	391099 B	21-05-2000
			WO	9845966 A2	15-10-1998
			US	5923650 A	13-07-1999
			ZA	9802973 A	13-10-1998